

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS(S): Gunma et al.

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TITLE: Method of Forming Patterns on Articles

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REQUEST FOR CORRECTED FILING RECEIPT

Sir:

Please correct the title for this application as follows:

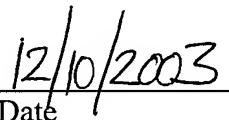
Method of Forming Patterns on Articles

Attached are copies of the first page of the Application showing the correct title and the official Filing Receipt for this application.

Respectfully submitted,



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Date

CERTIFICATION OF MAILING

I hereby certify that this correspondence is being deposited with the U.S. Postal Service by regular mail service under 37 CFR 1.10 on the date indicated below and addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY.DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/606,381	06/24/2003	1742	1258	884A.0006.U1(US)	2	41	3

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CONFIRMATION NO. 4723

UPDATED FILING RECEIPT



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Date Mailed: 11/14/2003

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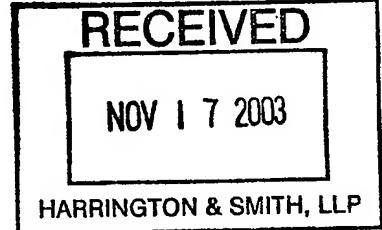
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Assignment For Published Patent Application

NOKIA CORPORATION;

Domestic Priority data as claimed by applicant



Foreign Applications

If Required, Foreign Filing License Granted: 09/16/2003

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Non-Publication Request: No

Early Publication Request: No

Title

Method of forming patt rns on articles

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A Method of Forming Patterns on Articles

This invention relates to methods of forming patterns on articles. The invention also relates to articles having patterns thereon. More particularly, but 5 not exclusively, the invention relates to mobile phone housings having electrical connector patterns thereon, and to methods of forming electrical connector patterns on mobile phone housings.

In the mobile phone industry, the density of components in the housing is 10 increasing, in view of the demand to make the products smaller. There are also demands to increase the functions of mobile phones, for example by providing them with a camera facility and for the capabilities for input devices.

In order to mitigate these problems, metallic line patterns have been 15 formed on the housing of the mobile phone to accommodate the electronic components thereon. However, the formation of such line patterns economically and using mass producible methods has been difficult.

According to one aspect of this invention there is provided a method of 20 forming a pattern on an article comprising applying a carrier material to a seeding substrate to provide the pattern, the carrier material carrying a substance to allow application of a metallic material thereto, moulding the substrate to form the article, and applying the metallic material to the seeding substance on the carrier material.

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According to another aspect of this invention there is provided a moulded article comprising a substrate and a substrate and a pattern on the substrate, the pattern comprising a first layer of a carrier material, carrying a seeding substance, and a second layer of metallic material, the second layer providing 30 electrical connections.

According to another aspect of this invention there is provided apparatus for forming a pattern on an article comprising a supply assembly for supplying a substrate, a first applicator for applying a carrier material to the substrate, the